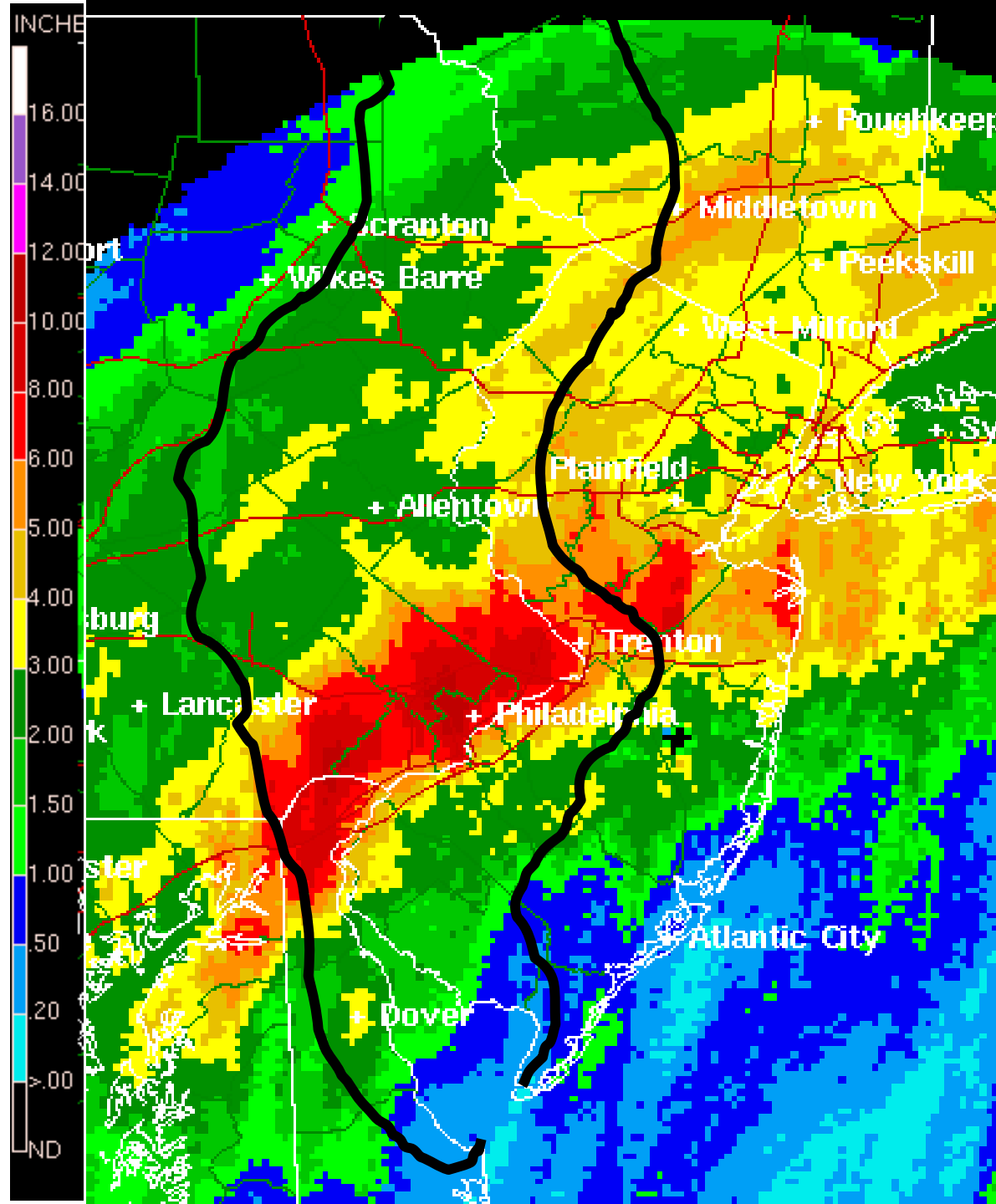


Flooding from Tropical Storm Jeanne - - September 28-29, 2004



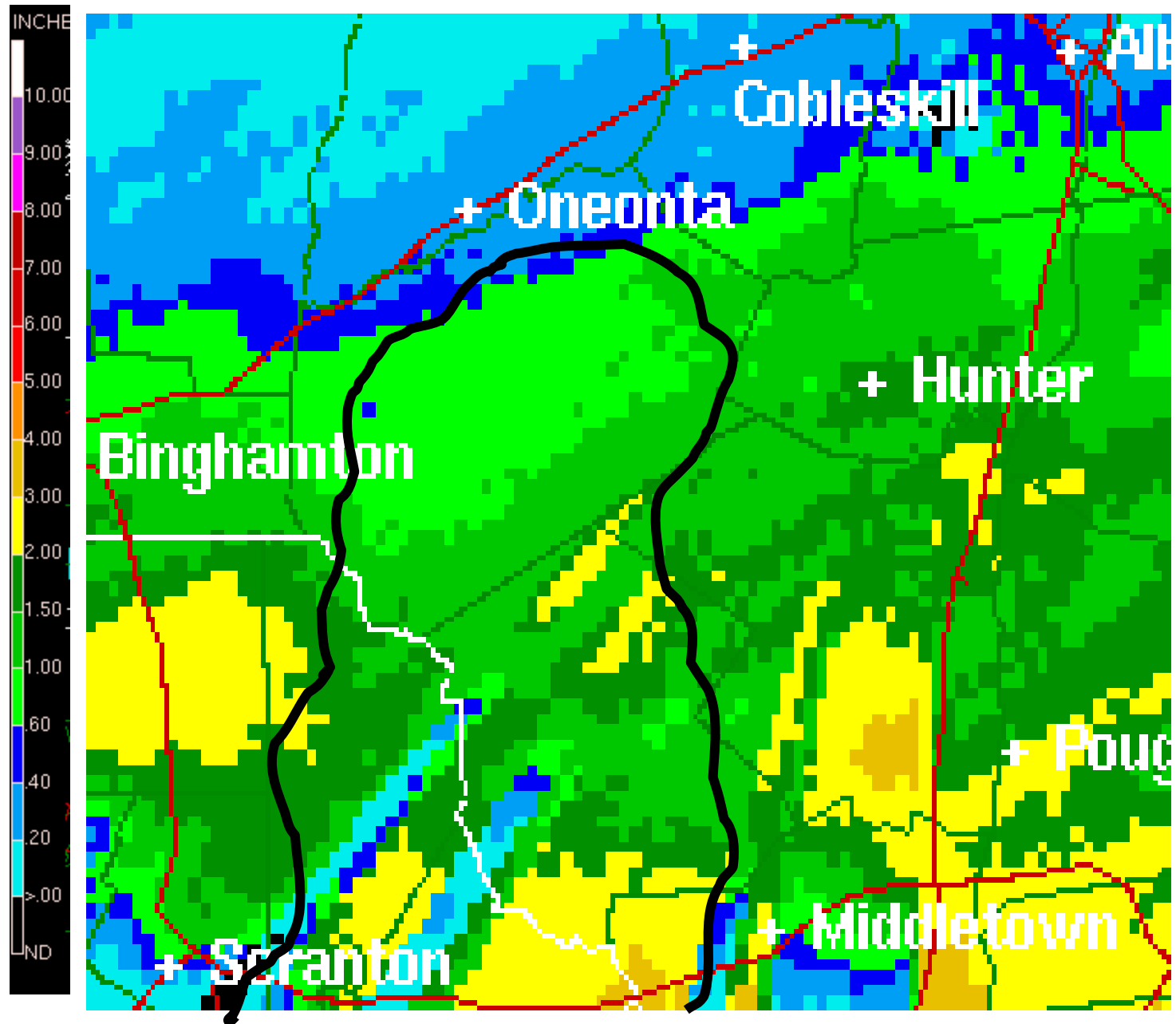
On September 28, 2004, the remnants of Tropical Storm Jeanne brought four- to eight-inches of rain to the Philadelphia metropolitan area – primarily in Delaware, Pennsylvania, and New Jersey north of the “Fall Line,” a geologic divide that separates the Coastal Plain from the more highly elevated Piedmont region to the north.

The heavy precipitation caused widespread urban and small stream flooding. Streams from northern Delaware to central New Jersey rose rapidly above flood stage during the evening hours, making roadways hazardous and evacuation difficult. Though flash flooding conditions had been predicted by the National Weather Service, precipitation amounts were even higher than expected in some areas.

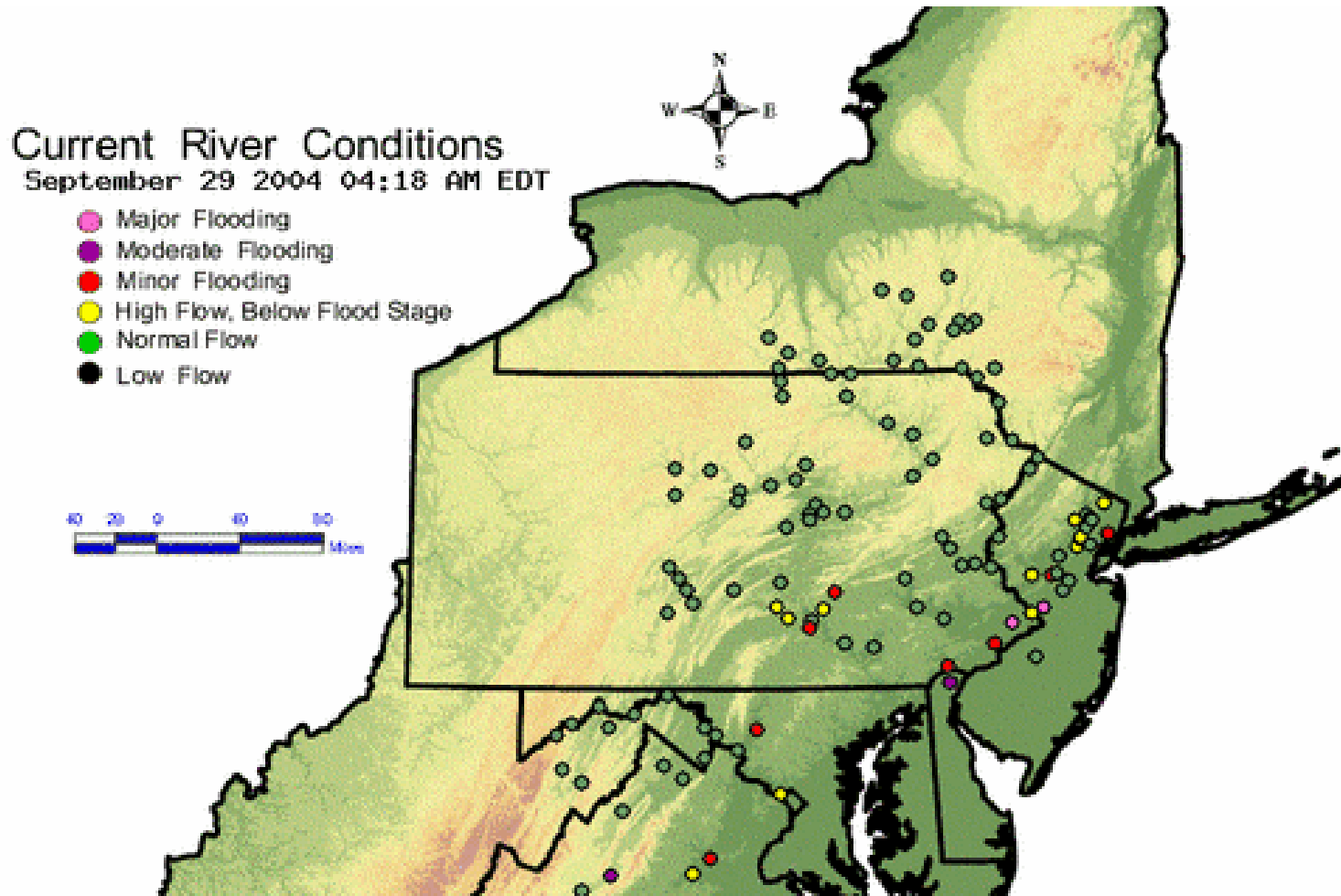


In the Upper Delaware River Basin, heavy precipitation was not as widespread as during Tropical Storm Ivan.

For this reason, flooding did not occur on the main stem Delaware and major tributaries north of Trenton.



Flooding from the remnants of Tropical Storm Jeanne occurred during the evening of September 28th and crests occurred early on September 29th. Major flooding occurred in urban areas and tributaries to the tidal Delaware River. There were numerous transportation problems and many vehicles were stranded by rapidly rising flood waters, sometimes on roadways that were previously barricaded.

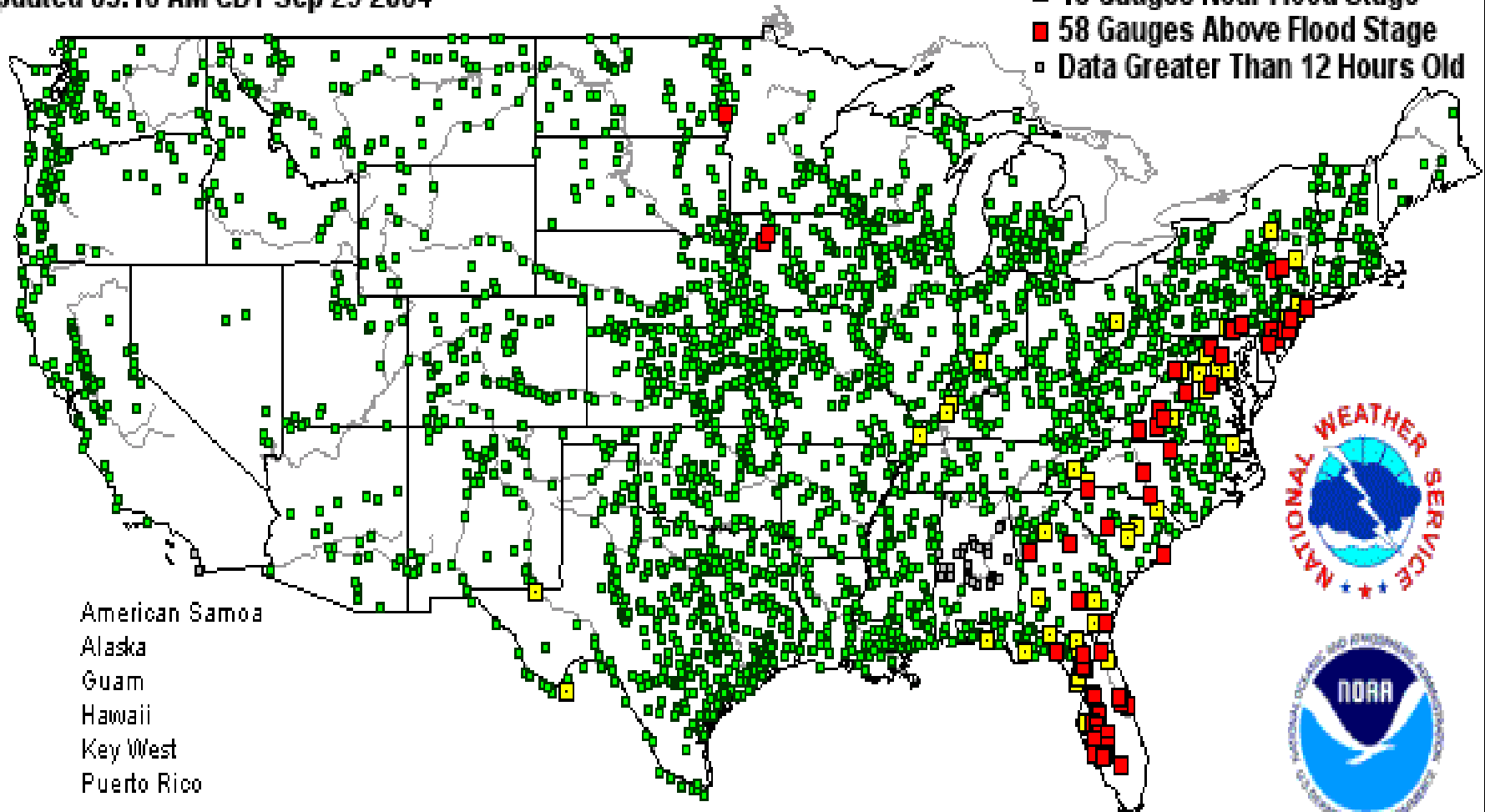


Source: Middle Atlantic River Forecast Center

By the early morning of September 29th, over 100 USGS stream gages comprising the Advanced Hydrologic Prediction Services forecasting network (AHPS) were near or above flood stage in the eastern United States.

Advanced Hydrologic Prediction Service
Updated 03:10 AM CDT Sep 29 2004

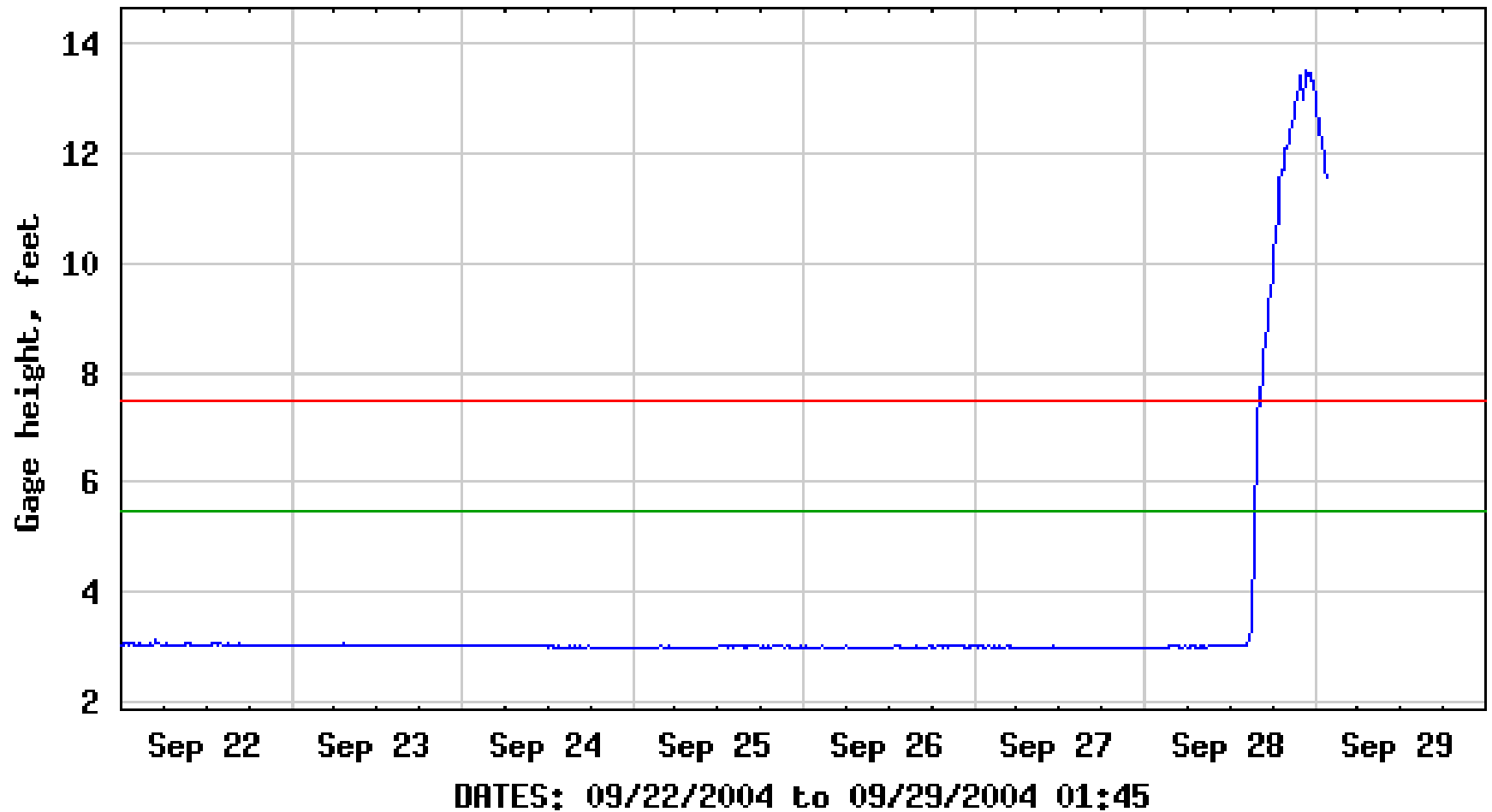
- 2627 Gauges Below Flood Stage
- 48 Gauges Near Flood Stage
- 58 Gauges Above Flood Stage
- Data Greater Than 12 Hours Old



American Samoa
Alaska
Guam
Hawaii
Key West
Puerto Rico



USGS 01480000 RED CLAY CREEK AT WOODDALE, DE



EXPLANATION

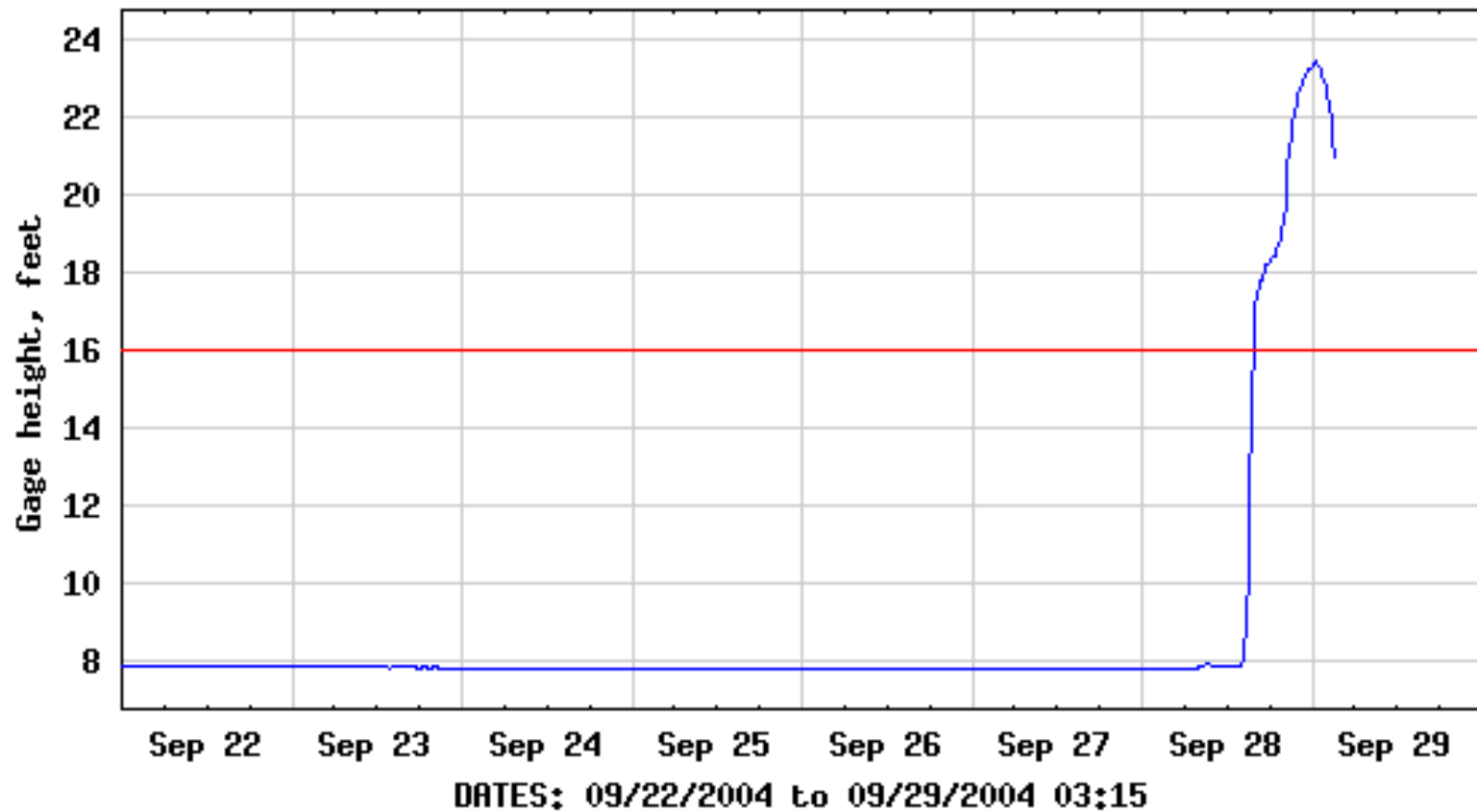
— GAGE HEIGHT

— flood stage

— bank full stage



USGS 01480015 RED CLAY CREEK NEAR STANTON, DE



EXPLANATION

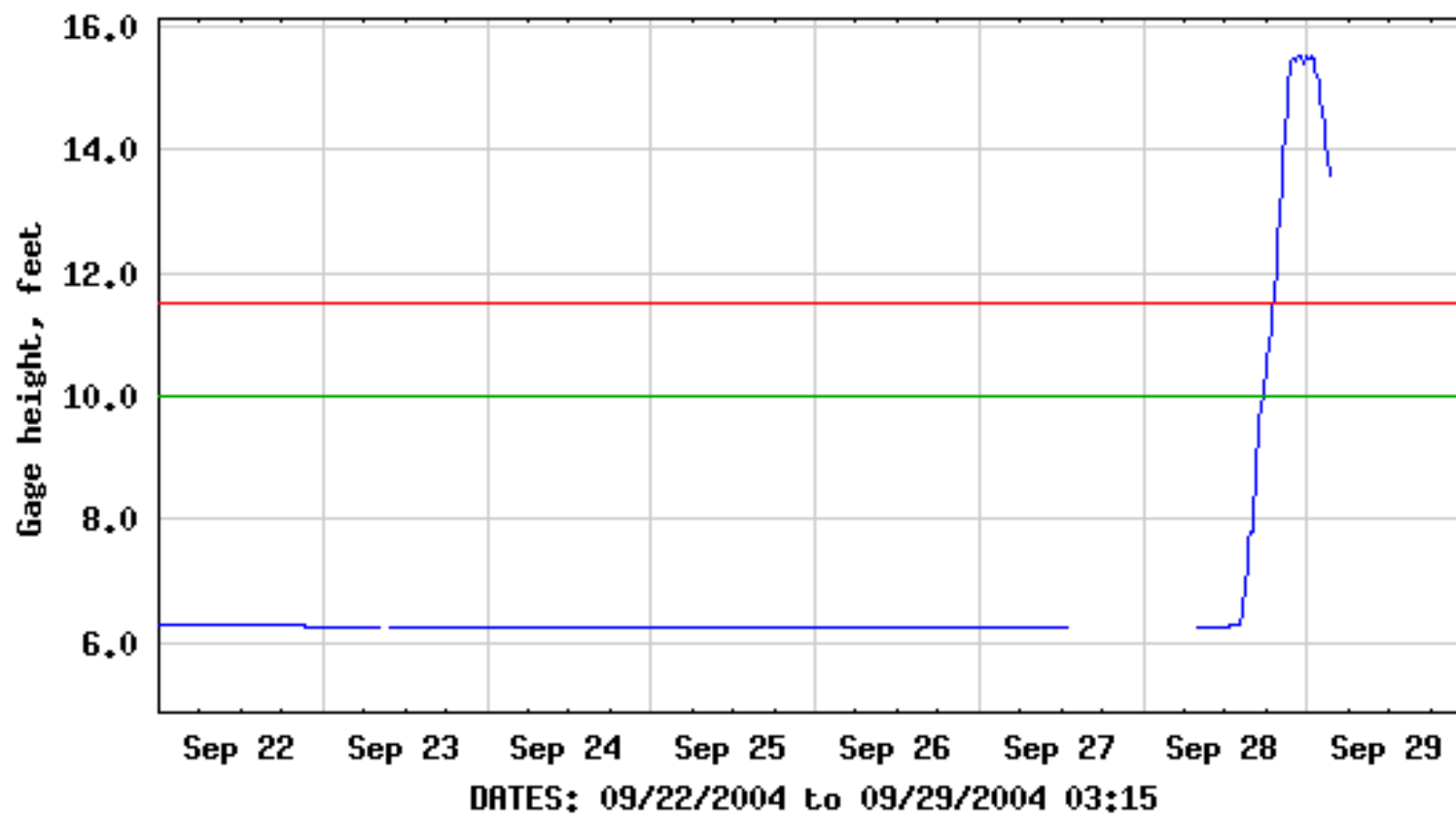
— GAGE HEIGHT

— bank full and flood stage

Provisional Data Subject to Revision



USGS 01478650 WHITE CLAY CREEK AT NEWARK, DE



EXPLANATION

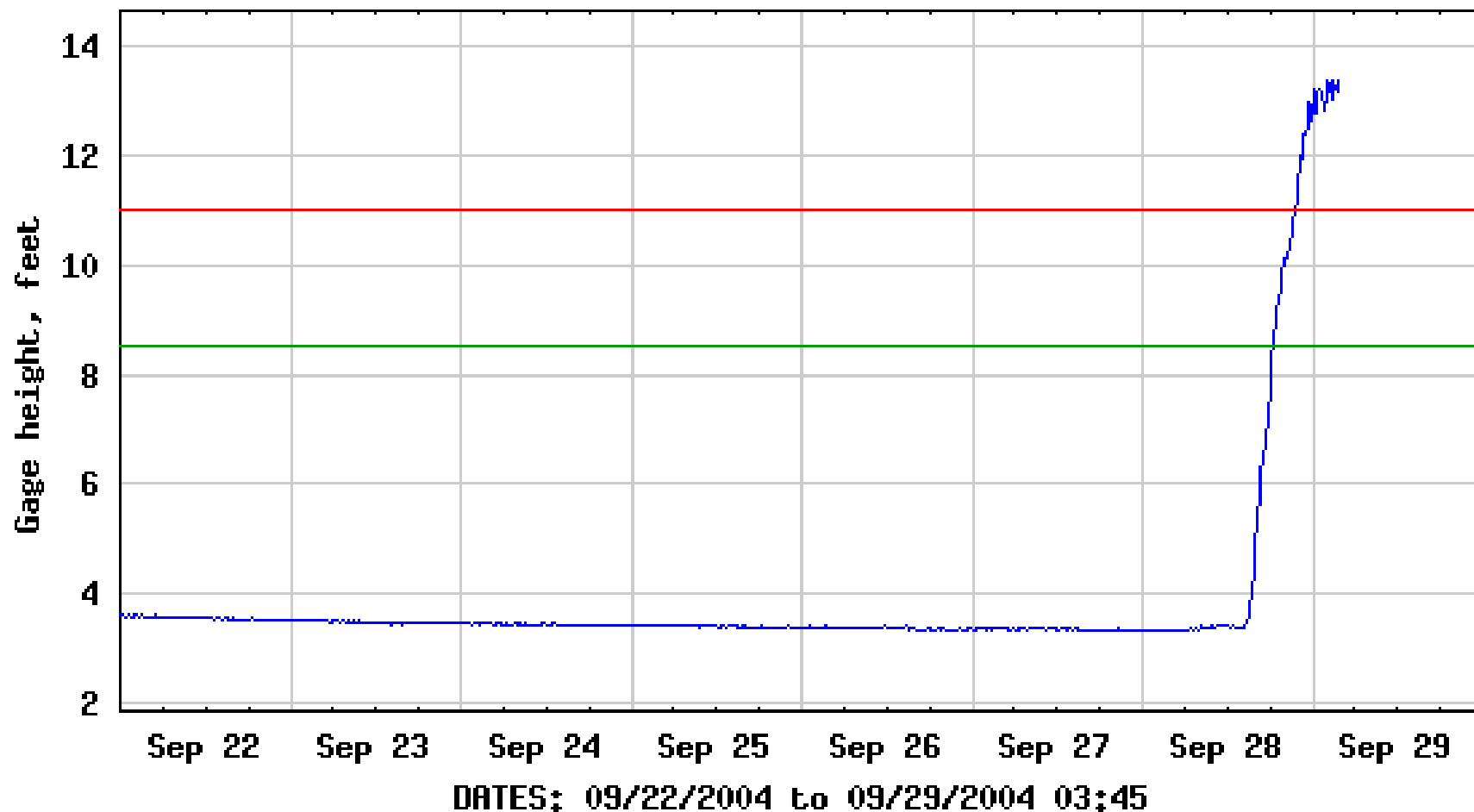
— GAGE HEIGHT

— flood stage

— bank full stage

Provisional Data Subject to Revision

USGS 01481500 BRANDYWINE CREEK AT WILMINGTON, DE



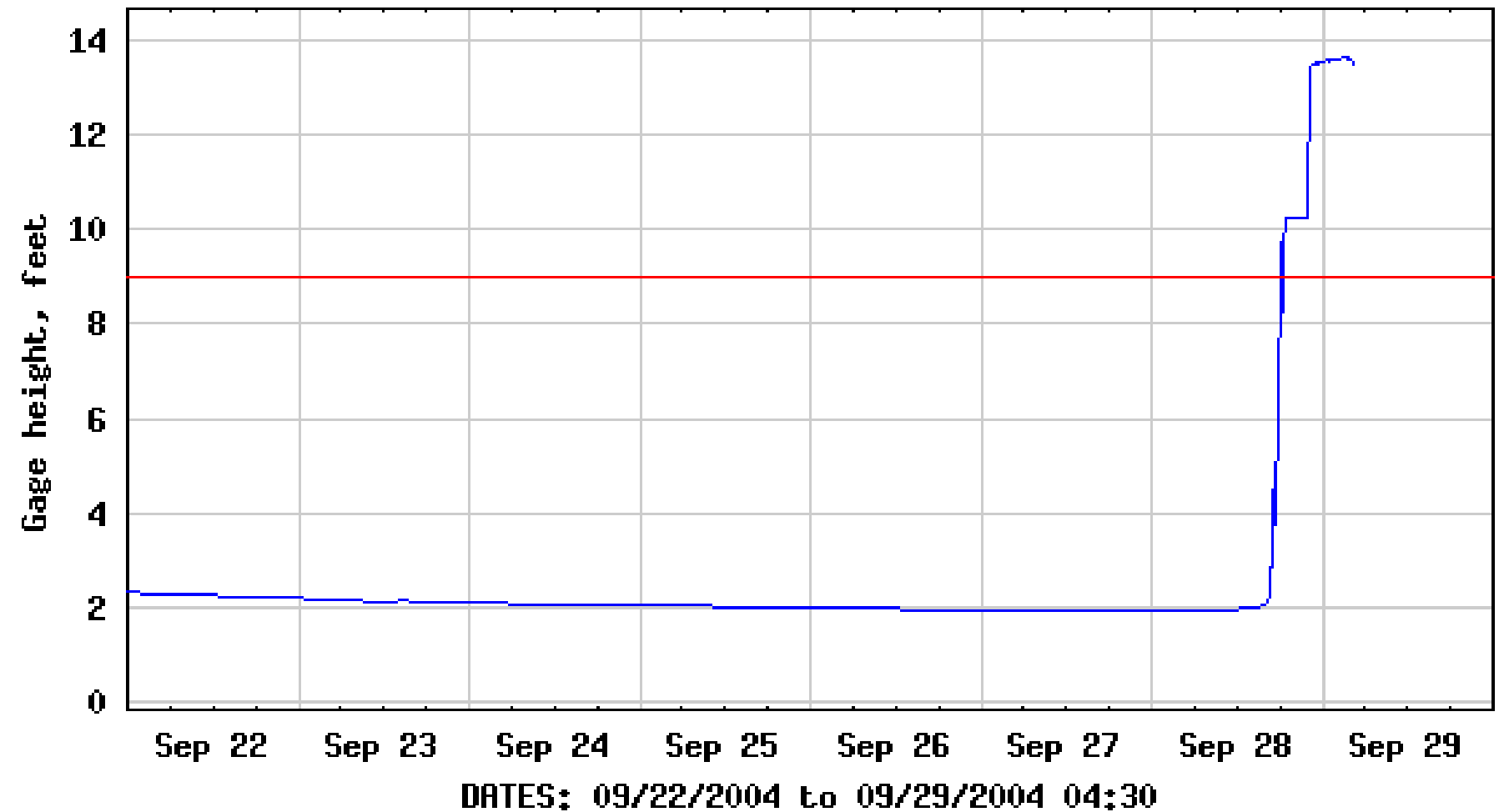
EXPLANATION

— GAGE HEIGHT

— flood stage

— bank full stage

USGS 01481000 Brandywine Creek at Chadds Ford, PA



EXPLANATION

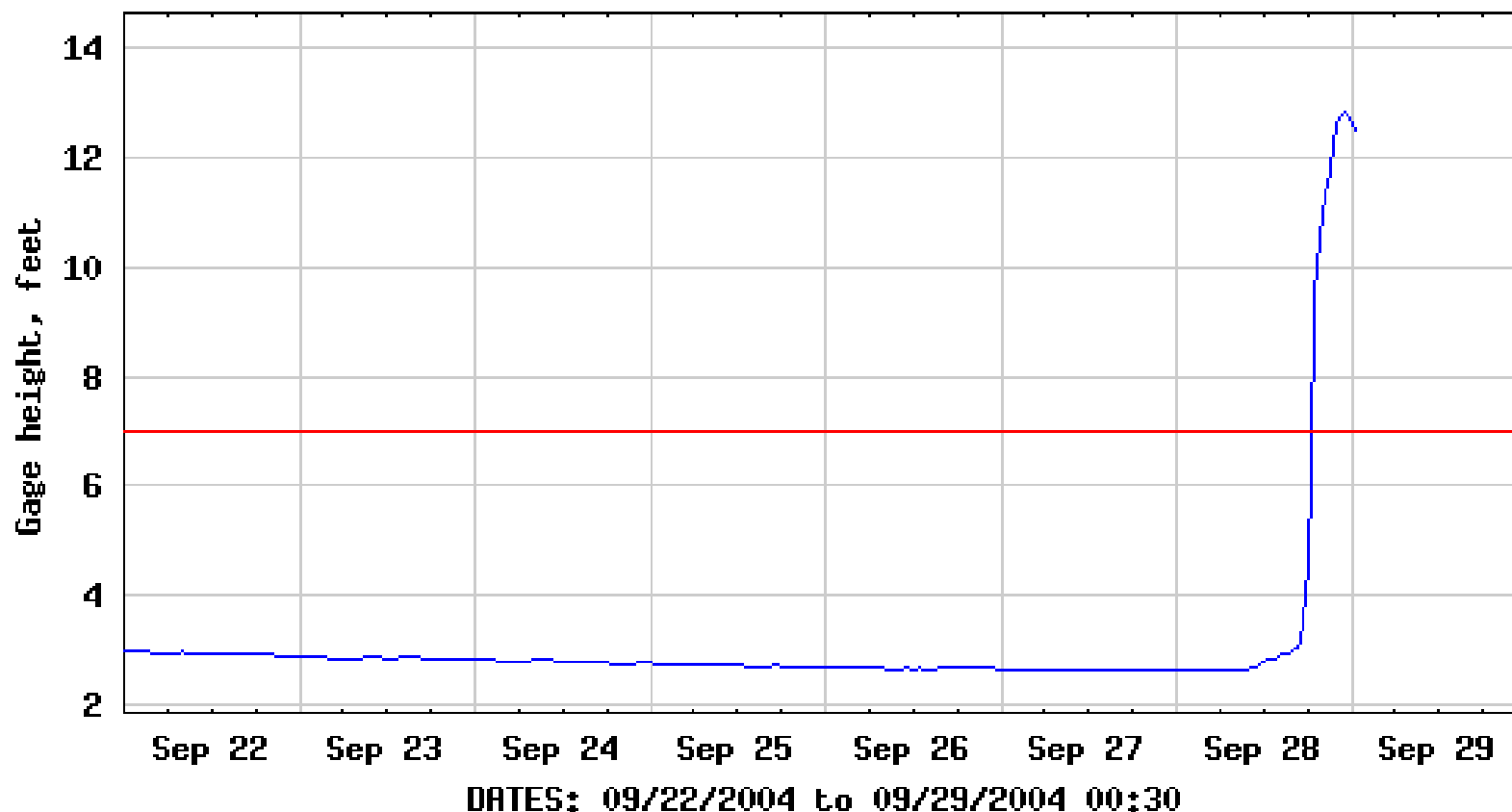
— GAGE HEIGHT

— Floodstage

Source: U.S. Geological Survey



USGS 01480870 East Branch Brandywine Creek below Downingtown, PA



EXPLANATION

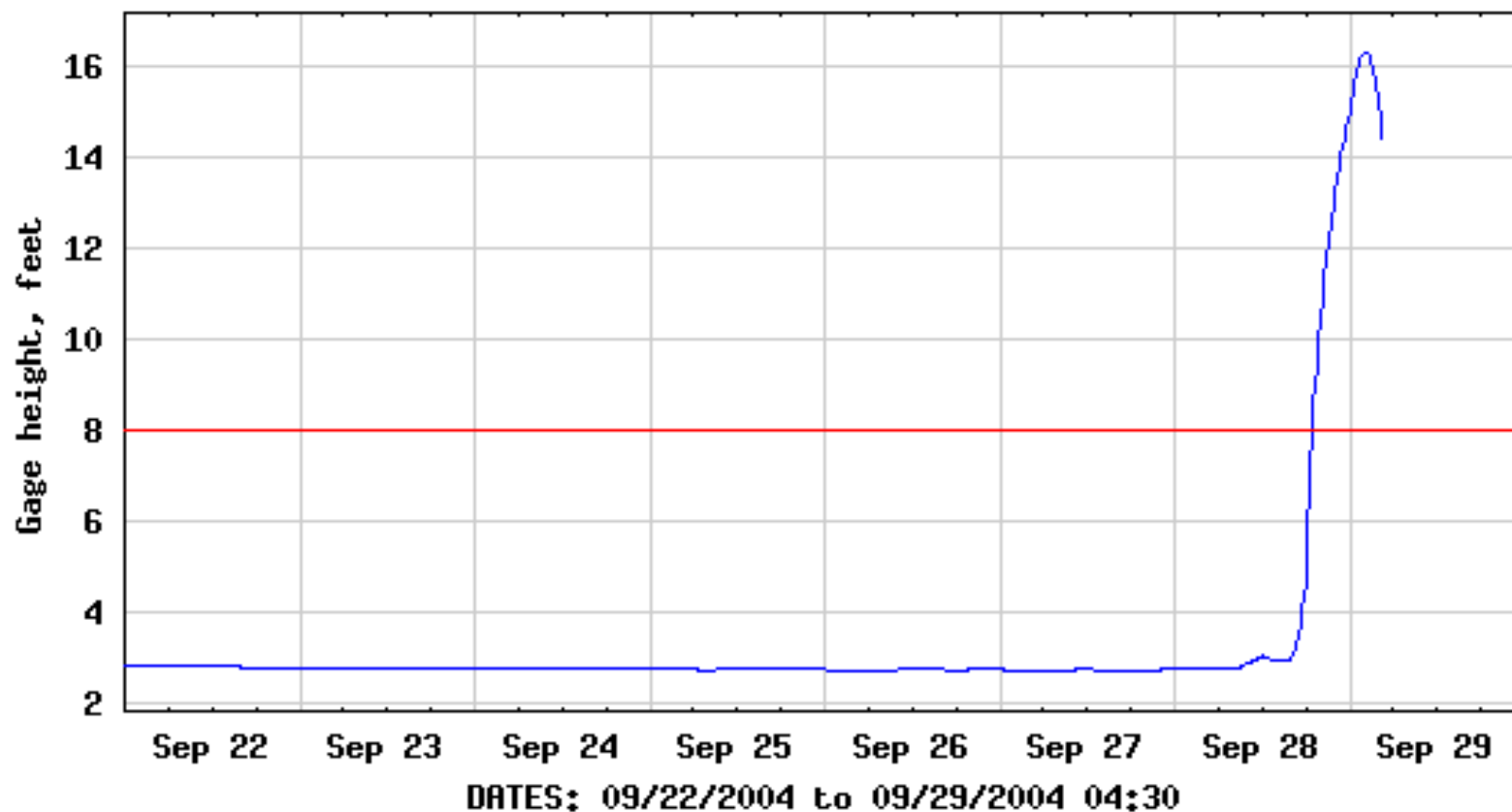
— GAGE HEIGHT

— Floodstage

Provisional Data Subject to Revision



USGS 01477000 Chester Creek near Chester, PA



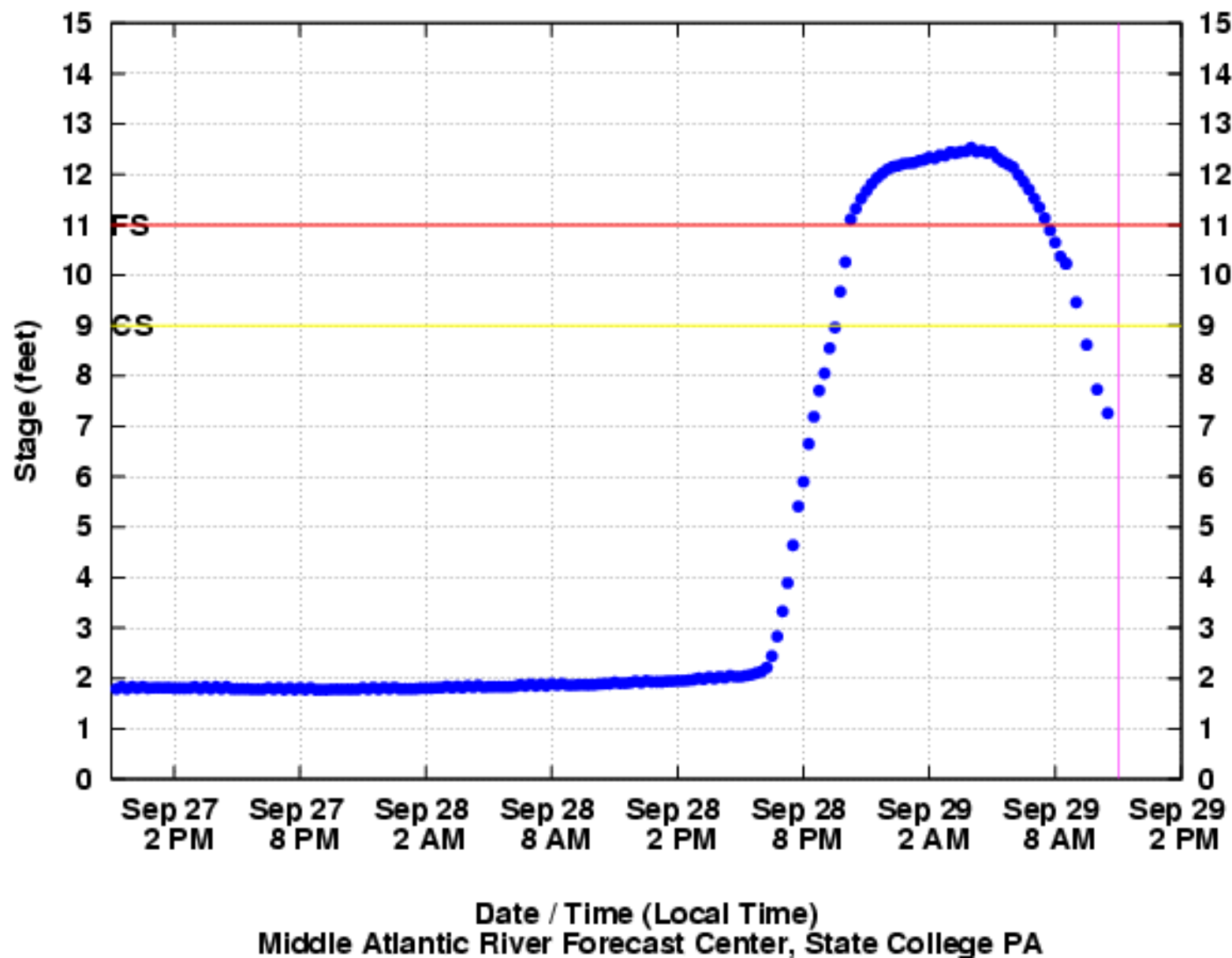
EXPLANATION

— GAGE HEIGHT

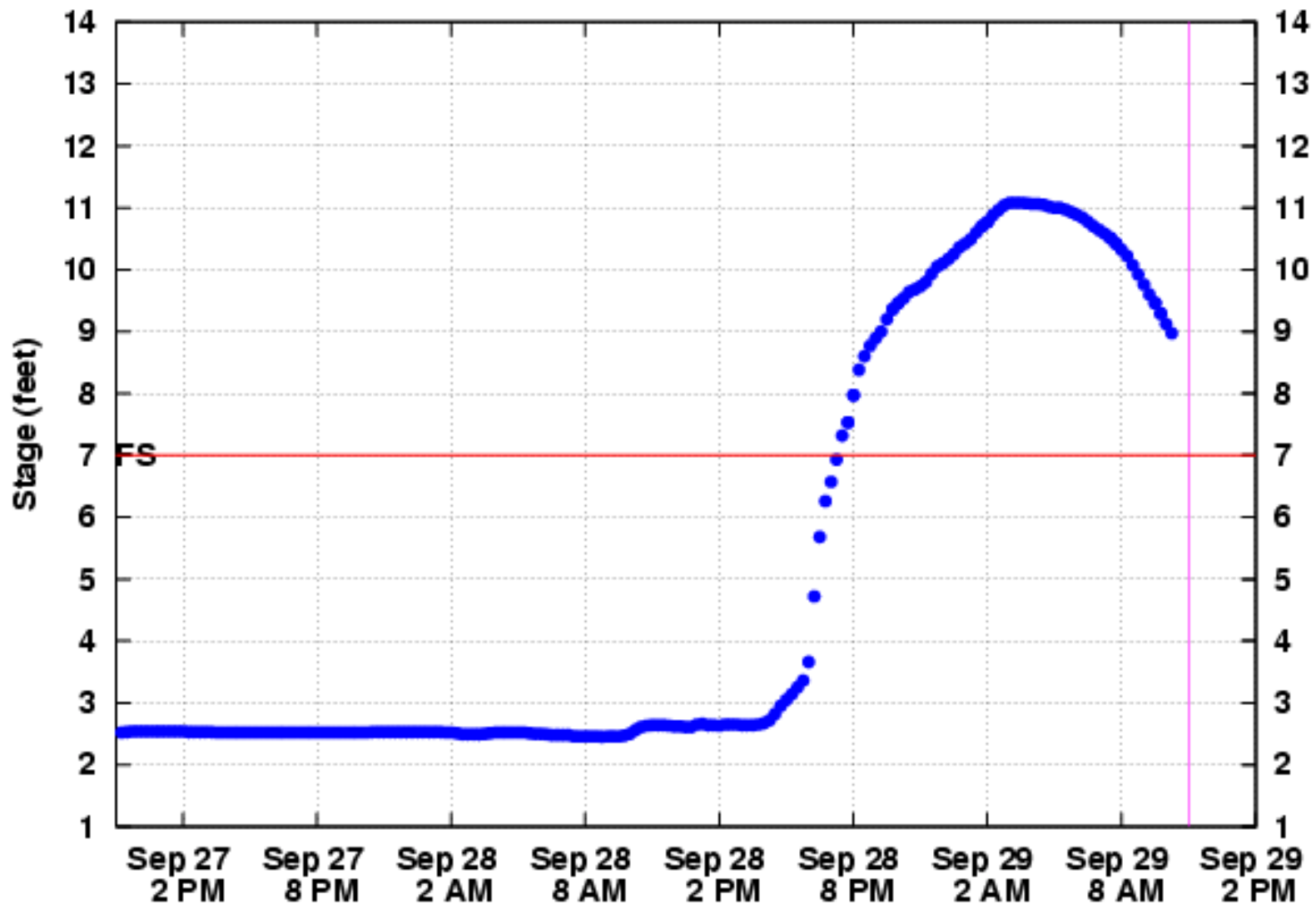
— Floodstage

Provisional Data Subject to Revision

Observed Stages for Graterford, PA on Perkiomen Creek

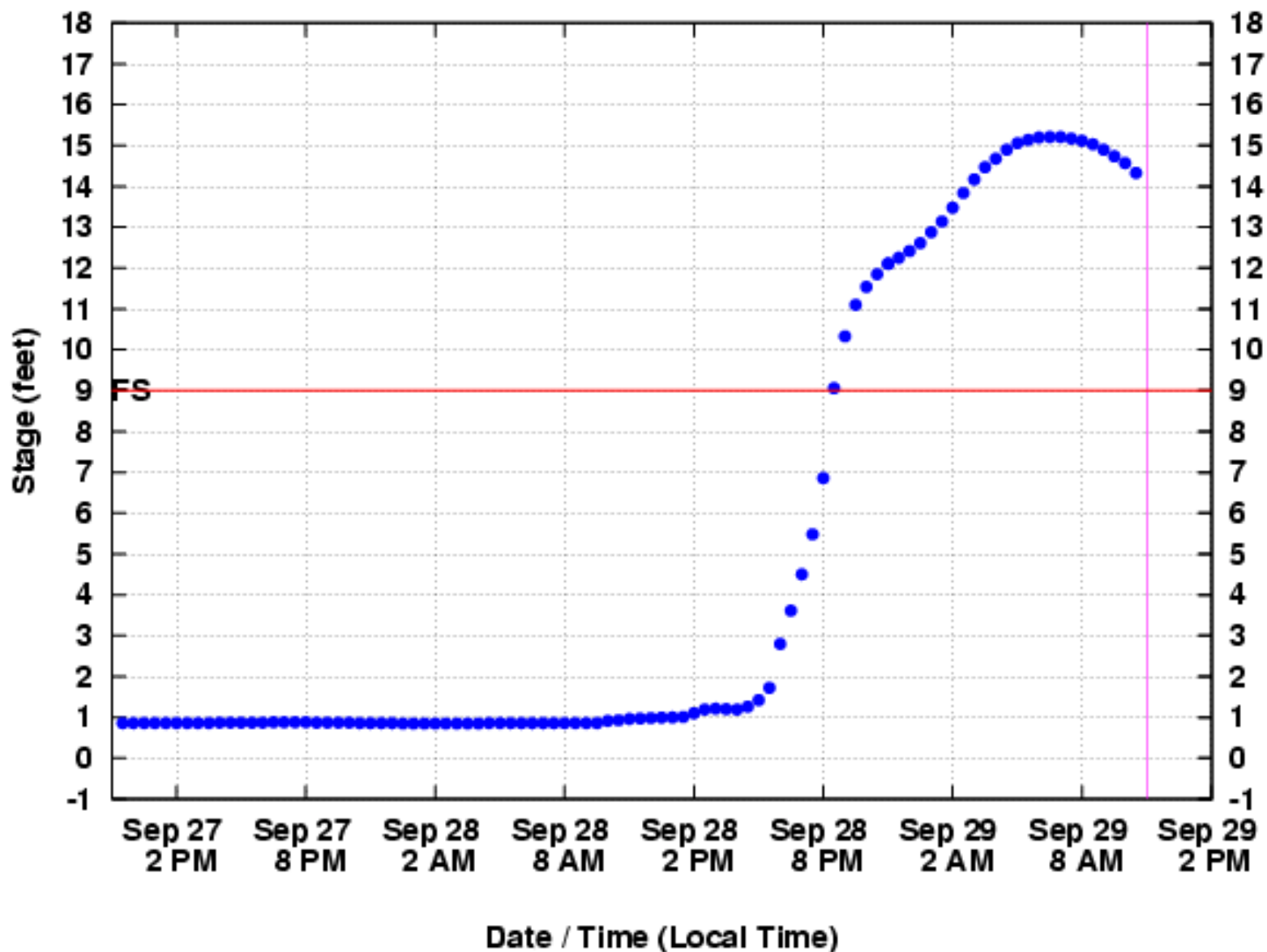


Observed Stages for Trenton, NJ on Assunpink Creek



Date / Time (Local Time)
Middle Atlantic River Forecast Center, State College PA

Observed Stages for Langhorne, PA on Neshaminy Creek



Middle Atlantic River Forecast Center, State College PA

Neshaminy Creek - September 29, 2004 – 9:15 a.m. upstream of U.S. Geological Survey Gaging Station and PA State Route 213 Bridge at Playwicki Park, Bucks County, PA. Stage = 15 ft. Flood Stage = 9 ft. Conditions on the Neshaminy were typical of many streams from northern Delaware to central New Jersey.



Neshaminy Creek - September 29, 2004 – 9:15 a.m. – Looking upstream from PA Route 213 Bridge.
Stage of Langhorne Stream Gage = 15 ft. Flood Stage = 9 ft.



Neshaminy Creek - September 29, 2004 – 9:15 a.m. – upstream side of PA Route 213 Bridge.
Stage of Langhorne Stream Gage = 15 ft. Flood Stage = 9 ft. Several Neshaminy Creek bridges were closed because of the flooding, causing major traffic delays.

